## DEPARTMENT OF HEALTH AND HUMAN SERVICES

## **National Institutes of Health**

Government-Owned Inventions; Availability for Licensing

**AGENCY:** National Institutes of Health, HHS.

**ACTION:** Notice.

**SUMMARY:** The invention listed below is owned by an agency of the U.S.

Government and is available for licensing to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

FOR FURTHER INFORMATION CONTACT: Licensing information may be obtained by communicating with the Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases, 5601 Fishers Lane, Rockville, MD 20852 by contacting Dr. Benjamin Hurley at 240-669-5092 or benjamin.hurley@nih.gov. A signed Confidential Disclosure Agreement will be required to receive copies of unpublished information related to the invention.

**SUPPLEMENTARY INFORMATION:** Technology description follows:

Nanoparticle Vaccine Against Mpox.

## **Description of Technology:**

In 2022, the World Health Organization declared an atypical outbreak of monkeypox (Mpox), which has caused approximately 30,000 cases of Mpox infection within the United States as of April 2023. Mpox represents a current threat to public health, and there is an immediate need for an effective vaccine. To address this, NIAID has developed a vaccine approach comprising virus-like nanoparticles coated with modified Mpox proteins. NIAID investigations have demonstrated that immunization has elicited a

robust immune response in mice and provided protection against a lethal infection of

Vaccinia virus.

This technology is available for licensing for commercial development in accordance

with 35 U.S.C. 209 and 37 CFR part 404, as well as for further development and

evaluation under a research collaboration.

**Potential Commercial Applications:** 

Immunization: Mpox nanoparticle vaccines may be more effective than current MVA

vaccination approaches in providing protection against Mpox infection.

The methodology for manufacturing the Mpox nanoparticle vaccine could be readily

adapted to generate vaccines for other poxviruses.

**Competitive Advantages:** 

A Mpox nanoparticle vaccine may have fewer side effects than available MVA based

vaccines.

The storage and transport requirements of a Mpox nanoparticle vaccine are better

suited to low resource settings than MVA vaccines.

Inventors: Bernard Moss, MD, Ph.D

**Publications:** Publication pending

**Intellectual Property:** HHS Reference No. E-183-2022; US Provisional Application No.

63/402,702.

**Licensing Contact:** To license this technology, please contact Benjamin Hurley at 240-

669-5092 or benjamin.hurley@nih.gov, and reference E-183-2022.

Collaborative Research Opportunity: The National Institute of Allergy and Infectious

Diseases is seeking statements of capability or interest from parties interested in

collaborative research to further develop, evaluate, or commercialize this invention. For

collaboration opportunities, please contact Benjamin Hurley; 240-669-5092,

benjamin.hurley@nih.gov.

**Dated:** May 9, 2023.

## Surekha Vathyam,

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Technology Transfer and Intellectual Property Office,

National Institute of Allergy and Infectious Diseases.

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